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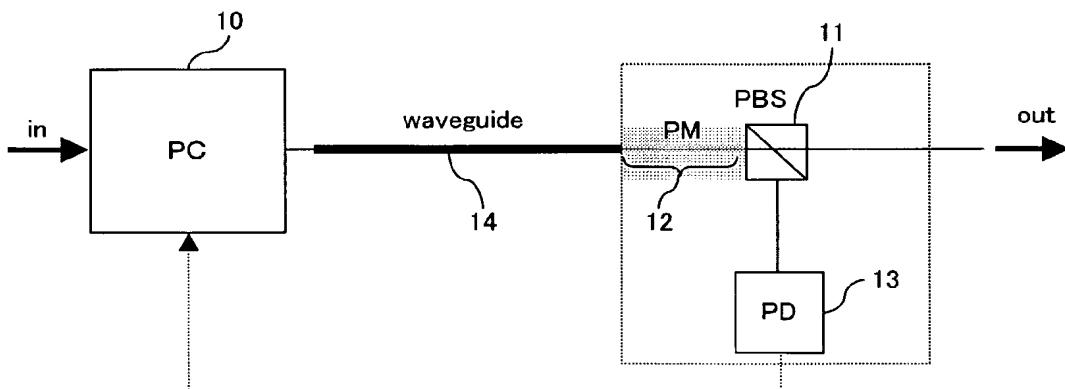
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(54) Title: APPARATUS FOR CONTROLLING POLARIZATION OF LIGHT IMPUTED TO POLARIZATION-MAINTAINING WAVEGUIDE COMPONENTS



(57) **Abstract:** A nonlinear birefringent waveguide is used for four wave mixing, wavelength conversion, Raman amplification, etc. In order to adjust the polarization of the input light to such waveguide 14, a polarization controller 10 is provided. And at the output side of the waveguide 14, a polarization beam splitter is provided. The polarization beam splitter splits one of orthogonal polarizations which is not desired to be passed through. The power of the split light is detected at photodiode 13. The detection signal of the photodiode 13 is fed back to the polarization controller 10. The polarization controller 10 controls the polarization of input light so that the power of light detected at the photodiode 13 is minimized.

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